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Inside and Outside Bounds: Threshold Estimates of the Phillips Curve

Michelle L. Barnes and Giovanni P. Olivei

Over the past 30 years, debates about the usefulness of the Phillips curve for explaining inflation have been ongoing. One of the reasons for the recurring debate about the existence of an inflation and unemployment tradeoff is that there have been several instances when large movements in the unemployment rate have elicited little response in the inflation rate. In principle, these episodes of horizontal movement are consistent with a Phillips curve relationship; they just require the curve to shift in the same direction as the unemployment rate. Econometric representations of the Phillips relationship usually incorporate factors that can cause the Phillips curve to shift over time. However, the literature has not yet provided a test of whether such factors are sufficient to explain the episodes of horizontal movement.

In this paper, the authors test the explanatory power of a piecewise linear specification of the Phillips relationship against a simple linear specification. The authors find that a piecewise linear specification of the Phillips curve provides a good characterization of inflation dynamics over the past 40 years and that the traditional shifters in the relationships are insufficient to characterize the episodes of horizontal movement. Apparently, the gap between the unemployment rate and the natural rate of unemployment must be outside of some threshold values before triggering a response in inflation. This suggests that monetary policy should aim to drive the unemployment rate lower until the lower limit of the inflation range is reached; however, such a strategy is complicated by the fact that the lower unemployment limit is estimated with uncertainty, leaving the policy implications open to debate. 3

Network Externalities in the Market for Electronic Check Payments

Joanna Stavins

Network externalities exist when the value of a good or service to a potential consumer increases with the number of other consumers using the same product. For a service characterized by network externalities, adoption and use can be below the socially optimal level because consumers or firms do not take into account the positive effect of their own use on others' use. A firm may decide not to adopt a technology because

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its private net benefits from adoption are negative, even though net social benefits may be positive. There could be at least two reasons why electronic check products have been relatively slow to spread: Financial institutions (or their customers) do not find electronic check products sufficiently attractive, and network externalities slow down the rate of adoption of these services. If network externalities are the cause of the slow rate of adoption, then there may be a reason to provide additional incentives to depository institutions to encourage their use.

Using data on individual banks' use of Federal Reserve electronic check services, the author tests whether local network externalities exist in electronic check services provided by the Federal Reserve. Two tests are applied: a clustering test and a market concentration test. The author finds no evidence that local network externalities exist in the market for electronic check services. 19

Margin Requirements Across Equity-Related Instruments: How Level Is the Playing Field?

Peter Fortune

Investors can participate in the returns on the Standard and Poor's 500 composite index in a variety of ways, and these alternatives exist because they differ in important respects. This article assesses one dimension of these differences—margin requirements.

Focusing on equity-related instruments, the author develops a model to simulate the values arising from several identical positions obtained by combinations of stocks and stock derivatives. The results are then used to assess the costs of margin requirements on alternative strategies. The primary conclusion is that the playing field is more level than a cursory focus on initial margin requirements might indicate. The costs associated with margin requirements on equities or stock indexes are essentially fixed costs. On the other hand, costs of margin requirements on derivatives, particularly on futures contracts, have a low fixed cost component but are more sensitive to the price of the underlying security. Investors may be choosing their strategies based on their tolerance for risk and may be sorting themselves into different markets, allowing all instruments to be financially viable. 31